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DR. W. NÄGELI, OF MOMBACH, ON THE MAINZ

Process for the Manufacture of Alcohol-Free Beer

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By the fermentation of beer worts, not only is there a sugar content change, in that the sugar is transformed into alcohol and carbon dioxide, but also many other compounds are produced which cause the taste and odor of the beer. Hence, the same product is not always produced from one and the same malt. According to the quality of the fermentation cells (yeasts) and the course of the fermentation a better or a poorer beer is produced.

Hence, to make an alcohol-free beer, it is not sufficient to treat the malt extract with hops. Aside from its too high sugar content, this beverage would not reproduce all the fine aromatic substances and flavors of various beers.

It has now been shown that alcohol is (aside from carbon dioxide) one of the most volatile constituents of beer, while most of the aromatic compounds volatilize only at higher temperatures. Hence if the beer is distilled in such manner that only the alcohol passes over, while the less volatile compounds run back, a product remains which, aside from the alcohol, lacks only the carbon dioxide and which may be converted into the original beer minus the alcohol by the addition of the carbon dioxide. The distillation takes place in an ordinary



distillation apparatus, the bonnet (ascending pipe) of which must be selected of sufficient length or must be properly cooled in such manner that all constituents which are less volatile than alcohol run back into the still.

This residual alcohol-free is then impregnated with carbon dioxide (claim)

The process for the manufacture of alcohol-free beer characterized by the distillation of alcohol beer with a reflux condenser and the replacement of the carbon dioxide driven off by artificial impregnation with said gas.